

IN THE CLAIMS

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A modulating apparatus of an on-channel repeater which receives a signal on one channel and distributes the signal on the same channel, comprising:
 - a baseband signal configuring means for configuring a baseband signal by combining an input field and a segment sync signal;
 - a pilot adding means for adding a pilot signal to the baseband signal;
 - an up-sampling means for up-sampling the baseband signal with the pilot signal added thereto;
 - a filtering means for filtering the up-sampled baseband signal with the pilot signal added thereto, wherein the filtering means generates an in-phase (I) signal and a quadrature (Q) signal and performs filtration;
 - a first digital-to-analog converting means for converting the filtered in-phase (I) signal into a first analog signal;
 - a second digital-to-analog converting means for converting the filtered quadrature (Q) signal into a second analog signal;
 - a first radio frequency (RF) up-converting means for directly up-converting the first analog signal into a first RF signal;
 - a second radio frequency (RF) up-converting means for directly up-converting the second analog signal into a second RF signal;
 - an adding means for adding the up-converted first and second analog signals.

- 2.-5. (Cancelled)

6. (Currently Amended) The modulating apparatus as recited in claim 1-~~or~~2, wherein the filtering means includes an Equi-Ripple (ER) filter and uses a window method.

7. (Currently Amended) The modulating apparatus as recited in claim 1-~~or~~2, wherein the filtering means includes an ER filter.

8. (Currently Amended) The modulating apparatus as recited in claim 1-~~or~~2, wherein the filtering means includes a square root raised cosine (SRRC) filter and uses a window method.

9. (Previously Presented) A modulating method of an on-channel repeater which receives a signal on one channel and distributes the signal on the same channel, comprising:

- baseband signal configuring step of configuring a baseband signal by combining an input field and a segment sync signal;
- a pilot adding step of adding a pilot signal to the baseband signal;
- an up-sampling step of up-sampling the baseband signal with the pilot signal added thereto;
- a filtering step of filtering the up-sampled baseband signal with the pilot signal added thereto, wherein said filtering generates an in-phase (I) signal and a quadrature (Q) signal and performs filtration;
- a first digital-to-analog converting step converting the filtered in-phase (I) signal into a first analog signal;
- a second digital-to-analog converting step converting the filtered quadrature (Q) signal into a second analog signal;
- a first radio frequency (RF) up-converting step directly up-converting the first analog signal into a first RF signal;
- a second radio frequency (RF) up-converting step directly up-converting the second analog signal into a second RF signal;
- adding the up-converted first and second analog signals.

10 - 13 (Cancelled)

14. (Currently Amended) The modulating method as recited in claim 9 ~~or 10~~, wherein, the filtering step, an Equi-Ripple (ER) filter and a window method are used.

15. (Currently Amended) The modulating method as recited in claim 9 ~~or 10~~, wherein, the filtering step, an ER filter is used.

16. (Currently Amended) The modulating method as recited in claim 9 ~~or 10~~, wherein, the filtering step, a square root raised cosine (SRRC) filter and a window method are used.